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10-25-90 TEAM 5

DATE: 10/28/96 TIME: 17:40:00

PAGE: 1

RAW SEQUENCE LISTING PATENT APPLICATION US/08/704,159

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This Raw Listing contains the General Information Section and up to the first 5 pages.

		SEQUENCE LISTING
1		ς // _~
2 3	(1)	General Information:
4 5 6		SEQUENCE LISTING ENTERED (i) APPLICANT: Williams, James A. Thalley, Bruce S.
7 8 9		(ii) TITLE OF INVENTION: Multivalent Vaccine For Clostridium Botulinum Neurotoxin
10 11		(iii) NUMBER OF SEQUENCES: 82
12 13		(iv) CORRESPONDENCE ADDRESS:
14 15		(A) ADDRESSEE: Medien a Cultural (A) STREET: 220 Montgomery Street, Suite 2200
16		(d) CITY, San Francisco
17		(D) STATE: California (E) COUNTRY: United States of America
18		(E) COUNTRY: United States of Immedia
19		(F) ZIP: 94104\
20		(v) COMPUTER READABLE FORM:
21		
22		
23		(B) COMPUTER: IBM PC COMPUTED (C) OPERATING SYSTEM: PC-DOS/MS-DOS (C) OPERATING SYSTEM: PC-DOS/MS-DOS (1.30)
24		(C) OPERATING SYSTEM: PC-DOS/MS-DOS (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
25		
26		(vi) CURRENT APPLICATION DATA:
> OK 28		(A) APPLICATION NUMBER. OD
> UK 28		(R) FILING DATE:
30		(C) CLASSIFICATION:
31		
32		(viii) ATTORNEY/AGENT INFORMATION:
33		(A) NAME: Ingolia, MIRRIE 40 027
34		(A) NAME: INSTRUCTION NUMBER: 40,027 (B) REGISTRATION NUMBER: 40,027 (C) REFERENCE/DOCKET NUMBER: OPHD-02304
35		(C) REFERENCE/ DOCKET MODELLA
36		(ix) TELECOMMUNICATION INFORMATION:
37		
38		(B) TELEFAX: (415) 397-8338
39		(B) TELEPAR. (120)
40		
4.3	1	2) INFORMATION FOR SEQ ID NO:1:
4.2		
43		(i) SEQUENCE CHARACTERISTICS:
4.		
4		(B) TYPE: nucleic acid
4	0	\-/ ·

RAW SEQUENCE LISTING PATENT APPLICATION US/08/704,159

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47	(C) STRANDEDNESS: single (D) TOPOLOGY: linear	
48 49 50	(ii) MOLECULE TYPE: DNA (genomic)	
51 52 53 54	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:	24
55 56	GGAAATTTAG CTGCAGCATC TGAC	
57 58	(2) INFORMATION FOR SEQ ID NO:2:	
59 60 61 62 63	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 24 base pairs (B) TYPE: nucleic acid (C) STRANBEDNESS: single (D) TOPOLOGY: linear	
65 66 67	(ii) MOLECULE TYPE: DNA (genomic)	
68 69	8 9 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:	24
7:	2 TCTAGCAAAT TCGCTTGTGT 10111	
7	4 (2) INFORMATION FOR SEQ 12	
7 7 7	(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 20 base pairs (A) TYPE: nucleic acid (C) STRANDEDNESS: single (C) STRANDEDNESS: single (D) TOPOLOGY: linear	
	81 82 (ii) MOLECULE TYPE: DNA (genomic) 83	
	84 85 86 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:	20
	87 88 CTCGCATATA GCATTAGACC	
	89 90 (2) INFORMATION FOR SEQ ID NO:4:	
	91 (i) SEQUENCE CHARACTERISTICS: 92 (A) LENGTH: 19 base pairs 93 (B) TYPE: nucleic acid 94 (C) STRANDEDMESS: single 95 (D) TOPOLOGY: linear	
	96 (D) TOPOLOGIC DAM 97 98 (ii) MOLECULE TYPE: DNA (genomic) 99	

PAGE: 3

RAW SEQUENCE LISTING PATENT APPLICATION US/08/704,159

DATE: 10/28/96 TIME: 17:40:08

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100 101	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:														
102 103		19													
105	(2) INFORMATION FOR SEQ ID NO:5:														
107 108	(i) SEQUENCE CHARACTERISTICS:														
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110	(A) LENGTH: (B) TYPE: nucleic acid (C) STRANDEDNESS: single														
111	(D) TOPOLOGY: linear														
112 113															
114															
115	5														
116	(ix) FEATURE:														
117 118	(A) NAME/KEY: CDS														
119	(B) LOCATION: 18130														
120															
121 122	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:	48													
122		48													
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155 156 TGG TAT GAT AGT GAA GCA TTC TTA GTA AAT ACA CTA AAA AAG GCT ATA 157 Trp Tyr Asp Ser Glu Ala Phe Leu Val Asn Thr Leu Lys Lys Ala Ile 157 Trp Tyr Asp Ser Glu Ala Phe Leu Val Asn Thr Leu Lys Lys Ala Ile	432
158 130 159 160 GTT GAA TCT TCT ACC ACT GAA GCA TTA CAG CTA CTA GAG GAA GAG ATT 160 GTT GAA TCT TCT ACC ACT GAA GCA TTA CAG CTA CTA GAG GAA GAG ATT 160	480
162 145 163 164 CAA AAT CCT CAA TTT GAT AAT ATG AAA TTT TAC AAA AAA AGG ATG GAA 164 CAA AAT CCT CAA TTT GAT AAT ATG AAA TTT TAC AAA AAA AGG ATG GAA 165 Gln Asn Pro Gln Phe Asp Asn Met Lys Phe Tyr Lys Lys Arg Met Glu	528
166 167 168 TTT ATA TAT GAT AGA CAA AAA AGG TTT ATA AAAT TAT TAT AAA TCT CAA 168 TTT ATA TAT GAT AGA CAA AAA AGG TTT ATA AAT TAT TAT AAA TCT CAA 169 Phe Ile Tyr Asp Arg Gln Lys Arg Phe Ile Asn Tyr Tyr Lys Ser Gln	576
170 171 172 ATC AAT AAA CCT ACA GTA CCT ACA ATA GAT GAT ATT ATA AAG TCT CAT 173 110 ASD Lys Pro Thr Val Pro Thr Ile ASD ASD Ile Ile Lys Ser His 173 120 205	624
174 195 200 175 CTA GTA TCT GAA TAT AAT AGA GAT GAA ACT GTA TTA GAA TCA TAT AGA 176 CTA GTA TCT GAA TAT AAT AGA GAT GAA ACT GTA TTA GAA TCA TAT AGA 177 Leu Val Ser Glu Tyr Asn Arg Asp Glu Thr Val Leu Glu Ser Tyr Arg 177 Leu Val Ser Glu Tyr Asn Arg Asp Glu Thr Val 220	672
178 210 213 179 180 ACA AAT TCT TTG AGA AAA AATA AAT AGT AAT CAT GGG ATA GAT ATC AGG 180 ACA AAT TCT TTG AGA AAA ATA AAT AGT AAT CAT GGG ATA GAT ATC AGG 181 Thr Asn Ser Leu Arg Lys Ile Asn Ser Asn His Gly Ile Asp Ile Arg 230 235 240	720
182 225 183 184 GCT AAT AGT TTG TTT ACA GAA CAA GAG TTA TTA AAT ATT TAT AGT CAG 185 Ala Asn Ser Leu Phe Thr Glu Glu Leu Leu Asn Ile Tyr Ser Gln 185 Ala Asn Ser Leu 255	768
186 187 188 GAG TTG TTA AAT CGT GGA AAT TTA GCT GCA GCA TCT GAC ATA GTA AGA 189 Glu Leu Leu Ass Arg Gly Ass Leu Ala Ala Ala Ser Asp Ile Val Arg 189 260 265	816
191 191 192 TTA TTA GCC CTA AAA AAT TTT GGC GGA GTA TAT TTA GAT GTT GAT ATG 193 Leu Leu Ala Leu Lys Asn Phe Gly Gly Val Tyr Leu Asp Val Asp Met 285	864
194 2/5 195 196 CTT CCA GGT ATT CAC TCT GAT TTA TTT AAA ACA ATA TCT AGA CCT AGC 197 Leu Pro Gly Ile His Ser Asp Leu Phe Lys Thr Ile Ser Arg Pro Ser 197 300	912
198 290 270 ATT ATT GGA CTA GAC CGT TGG GAA ATG ATA AAA TTA GAG GCT ATT ATG 200 TCT ATT GGA CTA GAC CGT TGG GAA ATG ATA AAA TTA GAG GCT ATT ATG 200 TCT ATT GGA CTA GAC CGT TGG GAA ATG ATA AAA TTA GAG GCT ATT ATG 200 TCT ATT GGA GCT ATT ATG 320 TCT ATT ATG 310 TCT ATT ATG 320 TCT ATT AT	960
202 305 310 203 204 AAG TAT AAA AAA TAT ATA AAT AAT TAT ACA TCA GAA AAC TTT GAT AAA 205 Lys Tyr Lys Lys Tyr Ile Asn Asn Tyr Thr Ser Glu Asn Phe Asp Lys	1008

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